

**FEDERAL RAILROAD ADMINISTRATION**  
**PROMOTIONAL AND CAREER OPPORTUNITIES**



**ORGANIZATION:** Federal Railroad Administration, Office of Safety

**ANNOUNCEMENT NO:** FRA-02-72T

**POSITION:** Engineer (Interdisciplinary - Electronics, Computer or Electrical), GS-15  
(One Position)

**OPENING DATE:** 08-14-02

**LOCATION:** Washington, DC

**CLOSING DATE:** Open Until Filled

**AREA OF CONSIDERATION:** ALL SOURCES (Status and Nonstatus Candidates. Candidates who are eligible for the Career Transition Assistance Program and the Interagency Career Transition Assistance Program may apply. Individuals eligible for special appointing authorities, such as disabled veterans and other disabled individuals may apply. Please specify your eligibility for a special appointing authority, if appropriate. Veterans who are preference eligibles or who have been separated from the armed forces under honorable conditions after three years or more continuous active service may apply. All applicants must be United States citizens.)

**NOTE:** This position will be open indefinitely until it is filled. The first referral of candidates will begin 30 days after the opening date.

**NOTE:** The salary range for this position (including locality pay for the Washington, DC metro area) is \$92,060 to \$119,682 per year. A Top Secret Clearance is required.

**NOTICE:** The Federal Railroad Administration (FRA) has experienced disruption of normal mail delivery through the U.S. Postal Service since October 16, 2001. This situation may not be resolved in the near future. Therefore, until further notice, applicants are encouraged to submit their applications/resumes for position vacancies with the FRA by email, by hand delivery to the FRA office of Human Resources, or via non-Governmental fax machines. Applicants also may hand deliver application to the DOT Connection at the main Department of Transportation Building. The street addresses, email address and fax number are listed in the announcement. In addition, applicants may want to consider using a private mail delivery service such as Federal Express or United Parcel Service to ensure their applications are received by FRA in a timely manner.

**NOTE:** This agency provides reasonable accommodations to applicants with disabilities. If you need a reasonable accommodation for any part of the application and hiring process, please notify Marcie Mullins ([Marcie.mullins@fra.dot.gov](mailto:Marcie.mullins@fra.dot.gov)) On 202/493-6114 or on the TDD number 202-493-6487 or 6488. The decision on granting reasonable accommodation will be on a case-by-case bases.

**NOTE:** We are not permitted to make copies of applications. Applications received in Government envelopes and/or postage-paid Government envelopes will not be considered since it is a violation of Federal law and regulation to use these envelopes for this purpose. In addition, in accordance with departmental policy, the FRA will not accept applications if there is evidence that they were sent from Federal Government FAX machines.

**NOTE:** All **status candidates** who wish to be considered under both merit promotion **and competitive procedures** (described below) must submit two (2) complete applications. When only one (1) application is received, it will be considered under merit promotion procedures only and will not be referred in the competitive examining process for rating, ranking and referral. In addition, status applicants who are eligible for consideration under special appointing authorities, such as 30 percent or more disabled veterans or persons with disabilities, must submit a separate application(s) for consideration under the special appointing authority(ies). Candidates applying under a special appointing authority(ies) must clearly indicate on their application(s) which authority(ies) they are applying under. If only one (1) application is received from the status candidates' eligible for a special appointing authority, the candidate will only be considered under merit promotion procedures, unless otherwise indicated on the application. If only two (2) applications are received from a status candidate who is eligible for a special appointing authority, one application will be considered under the merit promotion process and one application will be considered under competitive examining processes, unless otherwise indicated on the application.

**NOTE:** All **nonstatus candidates** who are eligible for a special appointing authority and wish to be considered under competitive procedures (explained below) must submit one (1) application for consideration under competitive procedures and a separate application(s) for each special appointing authority. Applicants must specify on each application the special appointing authority under which they would like to receive consideration. When only one (1) application is received from a nonstatus candidate eligible for a special appointing authority, the candidate will only be considered under the competitive examining procedures, unless otherwise specified on the application.

**NOTE:** Applications received from individuals with competitive status (status candidates) will be given first consideration. Applications from outside candidates (nonstatus candidates) may also be considered.

**Competitive Procedures:** In order for nonstatus applicants to be considered for selection to this position, they must be rated, ranked and referred on a certificate of eligibles through delegated examining authority granted by the U.S. Office of Personnel Management (OPM). Subsequently, a certificate of eligibles may be requested within 90 days of the closing date of the announcement and all nonstatus candidates who meet the minimum requirements may then be rated, ranked and referred.

**DUTIES:** This position is interdisciplinary and may be classified to any of the follow series: Electronics Engineer, GS-855; Computer Engineer, GS-854, or Electrical Engineer, GS-850. The incumbent serves as senior authority with respect to the application of safety-critical electronic systems used in railroad operations, with specific emphasis on system requirements (including security-related requirements), system architectures and interfaces and validation of systems (core expertise). Exercises a high degree of originality and sound judgment in identifying emerging issues and coordinating the resolution of those issues within FRA regulatory processes, industry organization and professional venues. Incumbent's unique function is the suitability of electronic systems to the railroad application, with respect to safety and security. Defines technical program objectives and requirements in the area of core expertise. Provides authoritative advice and recommendations in the area of core expertise for development of regulations and orders pertaining to the safety and security of electronic systems. Develops and recommends adoption of procedures and protocols for matters within the core expertise that come before the agency for special approvals of regulations or for variance from regulations. Evaluates and renders authoritative administrative opinions with respect to specific electronic systems used for communications and control functions, including advanced train control systems. Provides expert technical guidance to operations research analysts and other experts evaluating risk assessment documents submitted by railroads and other parties with respect to hazard identification and mitigation. Exercises initiative and judgment to identify and prioritize program needs, in such areas as budget, scheduling, and operations support, working in conjunction with staff directors. Maintains current knowledge of developments in the fields of core expertise and the general area of safety- and security-critical systems. As an internationally-recognized expert, participates in government conferences, national and

international professional society symposia and technical committees. Represents the Office of Safety and the FRA, as a recognized expert in the area of core expertise, in departmental and industry committees and task forces in the fields of safety and security. In consultation with the Senior Technical Advisor, defines research requirements and performs evaluations of completed research. Serves as team leader and contracting officer's technical representative as required.

**QUALIFICATIONS:** **Basic Requirements:** Candidates must have completed a full four-year professional engineering curriculum leading to a bachelor's degree or higher degree in engineering in an accredited college or university. To be acceptable, the curriculum must: (1) be in a school of engineering with at least one curriculum accredited by the Accreditation Board for Engineering and Technology (ABET) as a professional engineering curriculum; or (2) include differential and integral calculus and courses (more advanced than first-year physics and chemistry) in five of the following seven areas of engineering science or physics: (a) statics, dynamics; (b) strength of materials (stress-strain relationships); (c) fluid mechanics, hydraulics; (d) thermodynamics; (e) electrical fields and circuits; (f) nature and properties of materials (relating particle and aggregate structure to properties); (g) any other comparable area of fundamental engineering science or physics, such as optics, heat transfer, soil mechanics, or electronics.

Candidates may substitute for the above qualification requirement with an appropriate combination of education and experience - college-level education, training, and/or technical experience that furnished: (1) a thorough knowledge of the physical and mathematical sciences underlying professional engineering, and (2) a good understanding, both theoretical and practical, of the engineering sciences and techniques and their applications to one of the branches of engineering. The adequacy of such a background must be demonstrated by one of the following: (1) current registration as a professional engineer by any state, the District of Columbia, Guam, or Puerto Rico; (2) evidence of having successfully passed the Engineer-in-Training examination, or the written test required for professional registration, which is administered by the Boards of Engineering Examiners in various states, the District of Columbia, Guam and Puerto Rico; (3) successful completion in an accredited college or university of at least 60 semester hours of courses in the physical, mathematical, and engineering sciences and in engineering, or (4) successful completion in an accredited college of a full four-year or longer related curriculum leading to a bachelor's or higher degree in engineering technology or in an appropriate professional field.

In addition to meeting the basic qualification requirements listed above, all applicants also must possess 52 weeks of specialized experience at least equivalent to the next lower grade in the normal line of progression for the occupation in the organization. All status candidates must meet time-in-grade requirements. Qualifications and time in grade requirements must be met by the closing date of the announcement.

Specialized experience is experience that equipped the applicant with the particular knowledge, skills and abilities to perform successfully the duties of the position to be filled. The specialized experience should clearly demonstrate that the candidate possesses the knowledge, skills, abilities and other characteristics (KSAOCs) required by this position which are listed below.

**Determining minimum qualifications for further consideration in the evaluation process will be based on the candidates demonstration of the following KSAOCs:**

1. Strong knowledge of engineering principles applied to safety-critical systems.
2. Broad knowledge of the railroad industry with respect to train operations, communication and information systems, engineering (track, structures, signals), and corporate organization.
3. Skill in the design, production, and deployment of railroad or rail transit signal and/or train control

systems employing processor-based controls.

4. Ability to exercise leadership in the individual's professional field (as evidenced by peer-related publications, participation in professional committees preparing standards related to the design, verification, and/or validation of safety-critical systems, awards or appointment to positions of organization leadership - need not be rail specific).

5. Demonstrated ability to work in a team environment, assimilating inter-disciplinary inputs and working cooperatively with other subject matter experts.

#### **QUALITY RANKING FACTOR (Desirable)**

1. Knowledge of engineering principles and statistical techniques pertinent to the conduct of risk assessment at the system level.

2. Skill in the development and deployment of a communication-based train control system for conventional rail or transit, either domestically or internationally.

**EVALUATION METHOD:** Evaluation will be based on experience, education/training, awards and performance appraisals that are directly related to the duties of the position and the KSAOCs specifically identified in the announcement. **In order for applicants to get maximum credit in the evaluation process, CANDIDATES SHOULD SUBMIT A SEPARATE NARRATIVE STATEMENT WHICH ADDRESSES EACH OF THE KSAOCs LISTED ABOVE. IT IS SUGGESTED THAT THE CANDIDATES DESCRIBE THEIR PERTINENT EXPERIENCE, TRAINING, EDUCATION, AWARDS AND OUTSIDE ACTIVITIES FOR EACH KSAOC.**

**HOW TO APPLY:** All applicants must submit: (1) a written application form. (For example, you may submit a resume or the Optional Application for Federal Employment or the SF-171, Application for Federal Employment, or in any other written format.) However, your application **MUST** contain all of the information required by the attached Office of Personnel Management flyer, OF 510, Applying for a Federal Job; (2) a copy of your most recent performance appraisal which reflects performance in a position related to the job for which you are applying (status candidates only); (3) Background Survey Questionnaire, OPM Form 1386 (optional); and, **(4) appropriate proof of competitive status, eligibility for reinstatement, veterans preference, or eligibility for special appointing authorities.** Further, applicants are **strongly encouraged** to submit a narrative statement that addresses the KSAs, if any, with their applications in order to receive maximum credit for their experience and training. Applicants who do not submit the information and KSA narrative that addresses the KSAOCs, if any, with their applications in order to receive maximum credit for their experience and training. Applicants who do not submit the appropriate proof of eligibility information and KSAOC narrative statements, as appropriate, may be eliminated from consideration for the position.

Requests for consideration should refer to this announcement number and be addressed to:

Federal Railroad Administration  
Office of Human Resources, RAD-10  
1120 Vermont Avenue, N.W., Mail Stop 30  
Washington, D.C. 20590

If you are interested in visiting us, the FRA's Office of Human Resources is located on the 6<sup>th</sup> floor at the address listed above. You may also personally deliver your application to the U.S. Department of

Transportation's DOT Connection Office located at 400 7<sup>th</sup> Street, S.W., Plaza Level, Room 402, Washington, DC. Applications hand-delivered to the DOT Connection will be date-stamped and forwarded to our Office through the regular internal mail delivery system of the Department of Transportation.

Individuals with hearing impairments may access our TDD number by dialing (202) 493-6487 or 6488. between 9:00 a.m. and 5:00 p.m., Monday through Friday. For more information on this position vacancy, other applicants may contact Mrs. Teresa Overmier in the FRA's Office of Human Resources on (202) 493-6116 or by e-mail at [teresa.overmier@fra.dot.gov](mailto:teresa.overmier@fra.dot.gov) Applications/resumes may be faxed from non-Governmental fax machines to the Office of Human Resources at 202-493-6169.

*Para mas informacion en español sobre este anuncio de vacante o cualquier otra information sobre empleo en la Federal Railroad Administration (FRA), por favor llame a Francisco Gonzalez (202) 493-6076. La FRA practica es un empleador con igualdad de oportunidad en empleo, y que por medio de programs de accion afirmativa mantiene un ambiente multicultural.*

*Todod los que soliciten recibiran igual consideracion, sin ninguna excepcion, por raza, color, religion, sexo, origen nacional, politica, inpedimento fisico o edad.*

**For information on other employment opportunities with the Federal Railroad Administration, call the recorded JOB INFORMATION HOTLINE ON (202) 366-0584, or access the FRA Employment website at [WWW.FRA.DOT.GOV](http://WWW.FRA.DOT.GOV) - Jobs. The U.S. Office of Personnel Management (OPM) lists other Federal Job Opportunities on the Internet at [WWW.USAJOBS.OPM.GOV](http://WWW.USAJOBS.OPM.GOV).**

**NOTE:** Travel and transportation expenses may be provided in accordance with applicable Federal regulations.

**STANDARDS OF CONDUCT:** The successful applicant will be subject to the Standards of Conduct applicable to all Department of Transportation employees. In addition, applicants will be subject to the Supplemental Standards of Ethical Conduct for employees of the Federal Railroad Administration. A copy of these standards may be obtained from the Human Resources Office of the Federal Railroad Administration

**NOTE:** The selectee for this position will be required to submit to a urinalysis for illegal drug use prior to appointment unless presently employed in a Department of Transportation position which requires drug testing. Individuals with confirmed positive test results shall be refused employment. In addition, the selectee will be subject to random drug testing.

The FRA has determined that seniority rights/reemployment rights and leaves of absence from railroads constitute an actual or an appearance of a conflict of interest. Therefore:

- (1) If the individual selected for a position is not already an FRA employee, she/he will be required to divest any reemployment rights held at the conclusion of the one year initial appointment probationary period. If the individual does not serve an initial appointment probationary period, he/she will be required to divest prior to entrance on duty. Divestiture is a requisite for employment with the FRA. No waivers will be granted of the divestiture requirement.
- (2) If the individual selected is already an FRA employee who has reemployment rights which will create a conflict of interest in this position, she/he will be required to divest any reemployment rights held before the selection is finalized.
- (3) If the individual selected is already an FRA employee who has reemployment rights that would not create a conflict of interest in the vacant position, the employee may retain these rights as long as a

conflict does not exist.

**THE DEPARTMENT OF TRANSPORTATION IS AN EQUAL OPPORTUNITY EMPLOYER. ALL QUALIFIED CANDIDATES WILL BE CONSIDERED REGARDLESS OF POLITICAL AFFILIATION, RACE, COLOR, RELIGION, NATIONAL ORIGIN, SEX, SEXUAL ORIENTATION, MARITAL STATUS, AGE, OR HANDICAPPING CONDITION.**

**PRIVACY ACT REQUIREMENTS (P. L. 93-579)** The referenced forms are used to determine qualifications for promotion and are authorized under Title 5 of the U.S. Code, Sections 3302 and 3361. Each specified form must be submitted in order for you to be considered for promotion to the position being advertised. The social security number is not required for this purpose and may be deleted from the forms submitted. Your servicing personnel office or the office named in this announcement will be able to provide information on specific Privacy Act requirements.

CANDIDATES WHO FAIL TO SUBMIT THE REQUIRED FORMS WILL NOT BE CONSIDERED. NONE OF THESE FORMS WILL BE SUBSEQUENTLY LOANED OR RETURNED TO THE APPLICANTS. CANDIDATES WILL BE EVALUATED ON THE BASIS OF EXPERIENCE AND EDUCATION, PERFORMANCE APPRAISAL, TRAINING AND AWARDS.

.

**ELIGIBILITY REQUIREMENTS UNDER THE CAREER TRANSITION ASSISTANCE (CTAP) PROGRAM:**

Applicants must:

- File an application for a specific position within the established time frames;
- Be a current DOT employee serving under an appointment in the competitive service, in tenure group I or II (Career or career-conditional); **(The certification of status must be attached to the application.)**
- Be currently employed by DOT in the same commuting area of the position for which you are requesting priority consideration. However, FRA employees may be employed at any duty location around the country.
- Apply for a specific position that is at or below the grade level from which you may be separated, that does not have a greater promotion potential than the position from which you may be separated;
- Have received a specific reduction in force (RIF) notice identifying you as being a displaced employee, or have received a Certification of Surplus Separation or other certification issued by the DOT which identified you as being in a surplus organization or occupation **(the Certificate or Notice must be attached to the application)**; and
- Be determined by the FRA to be well-qualified for the specific position, which includes all of the following:
  - 1) Meet the qualification standards and eligibility requirements for the position, including any medical qualifications, and minimum educational and experience requirements;
  - 2) Meet all selective factors, if applicable;
  - 3) Meet appropriate quality ranking factors;
  - 4) Be physically qualified, with reasonable accommodation where appropriate, to perform the duties of the position;
  - 5) Meet any special qualifying factors that OPM has approved for the position;
  - 6) Be able to satisfactorily perform the duties of the position upon entry; and
  - 7) Have a current performance rating of record of at least fully satisfactory or equivalent. **(The complete performance rating of record must be attached to the application).**

**ELIGIBILITY REQUIREMENTS UNDER THE INTERAGENCY CAREER TRANSITION ASSISTANCE PROGRAM (ICTAP).**

Applicants must:

- File an application for a specific position within the established time frames;
- Be a displaced Federal employee. **(Applicants must submit a copy of the appropriate documentation for priority consideration with the application package.)**
- The following categories of candidates are considered displaced employees:
  - A. Current or former career or career-conditional (tenure group I or II) competitive service employees who:
    1. Received a specific RIF separation notice **(Applicants must submit a copy of their SF-50**

**stating that they were separated by RIF.); or**

2. Separated because of a compensable injury, whose compensation has been terminated, and whose former agency certifies that it is unable to place **(Applicants must submit a copy a letter from your former agency certifying that it could not find employment for you back in the agency within one year after being on workers' compensation); or**

3. Retired with a disability and whose disability annuity has been or is being terminated **(Applicants must submit a copy of the OPM letter stating that the disability annuity is being terminated because they have been certified as fully recovered or your earnings have reached or exceeded the amount requiring cancellation of the annuity; AND a copy of a doctor's statement certifying that they are fully recovered and are ready to return to work.); or**

4. Upon receipt of a RIF separation notice retired on the effective date of the RIF **(Applicants must submit a copy of the SF-50 indicating "Retirement in lieu of RIF."); or**

5. Retired under the discontinued service retirement option **(Applicants must submit a copy of the SF-50 indicating "Retirement in lieu of RIF."); or**

6. Was separated because of declination of a transfer of function or directed reassignment to another commuting area **(Applicants must submit the SF-50 indicating separation due to declination of transfer of function or directed reassignment outside of the local commuting area.).**

OR

B. Former Military Reserve of National Guard Technicians who are receiving a special Office of Personnel Management (OPM) disability retirement annuity under section 8337(h) or 8456 of title 5 United States Code. **(Applicants must submit a copy of their eligibility letter from the National Guard or Military Reserve.)**

--Be applying for a position at or below the grade level of the position from which you have been separated, that does not have a greater promotion potential than the position from which you were separated.

--Have a current (or last) performance rating of record of at least fully successful or equivalent. This MUST be submitted with the application package. (This requirement does not apply to candidates who are eligible due to compensable injury or disability retirement.)

--Occupy or be displaced from a position in the same local commuting area of the position for which you are requesting priority consideration. However, former FRA employees may have been employed in any duty location across the country.

--Be determined by the FRA to be well-qualified for the specific position, which includes all of the following:

- 1) Meet the qualification standards and eligibility requirements for the position, including any medical qualifications, and minimum educational and experience requirements;
- 2) Meet all selective factors, if applicable;
- 3) Meet appropriate quality ranking factors;
- 4) Be physically qualified, with reasonable accommodation where appropriate, to perform the duties of the position;
- 5) Meet any special qualifying factors that OPM has approved for the position;
- 6) Be able to satisfactorily perform the duties of the position upon entry; and
- 7) Have a current performance rating of record of at least fully satisfactory or equivalent. **(The complete performance rating of record must be attached to the application.)**



## APPLYING FOR A FEDERAL JOB

### THE FEDERAL GOVERNMENT IS AN EQUAL OPPORTUNITY EMPLOYER

#### Here's What Your Application Must Contain

(In addition to specific information requested in the job vacancy announcement)

JOB INFORMATION	WORK EXPERIENCE
<p>Announcement number and title of the position for which you are applying.</p> <p><b>PERSONAL INFORMATION</b></p> <ul style="list-style-type: none"> <li>➤ Full Name</li> <li>➤ Mailing Address (with Zip Code)</li> <li>➤ Day and evening telephone numbers</li> <li>➤ Social Security Number</li> <li>➤ Country of Citizenship (most Federal jobs require United States Citizenship)</li> <li>➤ Veterans' preference (Proof Required)</li> <li>➤ Reinstatement eligibility (Attach SF-50)</li> <li>➤ Highest Federal civilian grade held, series and dates held</li> </ul>	<p>Give the following information for your paid and non-paid work experience related to the job for which you are applying.</p> <ul style="list-style-type: none"> <li>➤ Job Title (including series and grade if a Federal Job)</li> <li>➤ Duties and accomplishments</li> <li>➤ Employer's name and address</li> <li>➤ Supervisor's name and telephone number</li> <li>➤ Starting and ending dates (month &amp; year)</li> <li>➤ Salary</li> <li>➤ Hours per week</li> <li>➤ Indicate if we may contact your current supervisor</li> </ul>
<p><b>EDUCATION</b></p> <ul style="list-style-type: none"> <li>➤ High School Name, City, State, and date of diploma or GED.</li> <li>➤ Colleges or Universities, name, city, and state (Zip Code, if known)</li> <li>➤ Majors</li> <li>➤ Type and year of degree received.</li> <li>➤ If degree is not completed, number of semester or quarter hours completed</li> </ul>	<p><b>OTHER QUALIFICATIONS</b></p> <ul style="list-style-type: none"> <li>➤ Job-related training courses (title, number of hours, year)</li> <li>➤ Job-related skills, e.g., other languages, computer software/hardware, typing speed</li> <li>➤ Job-related certificate and licenses (current only)</li> <li>➤ Job-related honors, awards, and special accomplishments, e.g., memberships in professional or honor societies, leadership activities, public speaking, and performance awards, publications. (Give date but do not send documents unless requested).</li> </ul>
<p><b>VETERANS' PREFERENCE IN HIRING</b></p> <ul style="list-style-type: none"> <li>➤ If you served on active duty in the United States Military and were separated under honorable conditions, you may be eligible for veterans' preference. To receive preference if your service began after October 15, 1976, you must have a Campaign Badge, Expeditionary Medal, or a service-connected disability.</li> <li>➤ Veterans' preference is not a factor for Senior Executive Service jobs or when competition is limited to status candidates (current or former Federal career or career-conditional employees).</li> <li>➤ To claim 5-point veterans' preference, attach a copy of your DD-214, <i>Certificate of Release or Discharge from Active Duty</i>, or other proof of eligibility.</li> <li>➤ To claim 10-point veterans' preference,</li> </ul>	<p><b>OTHER IMPORTANT INFORMATION</b></p> <ul style="list-style-type: none"> <li>➤ Before hiring, an agency will ask you to complete a Declaration for Federal Employment to determine your suitability for Federal employment and to authorize a background investigation. The agency will also ask you to sign and certify the accuracy of all the information in your application. If you make a false statement in any part of your application, you may not be hired; you may be fired after you begin work; or you may be fined or jailed.</li> <li>➤ If you are a male over age 18 who was born after December 31, 1959, you must have registered with the Selective Service System (or have an exemption) to be eligible for a Federal job.</li> <li>➤ The law prohibits public officials from appointing, promoting, or recommending their relatives.</li> <li>➤ Federal annuitants (military and civilian) may</li> </ul>

<b>attach an SF-15, <i>Application for 10-Point Veterans' Preference</i>, plus the proof required by that form.</b>	<b>have their salaries or annuities reduced. All employees must pay any valid delinquent debts or the agency may garnish their salary.</b>
---	--